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TI Preparation of N-alkyl-a-amino acids and their derivatives as intermediates for carboxyalkyl dipeptides

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PA ADIR, Fr.

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DT Patent

LA French

IC ICM C07C099-00

ICS C07C101-12; C07D209-42

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1

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PI EP 309324	A1	19890329	EP 1988-402340	19880916 <--
EP 309324	B1	19910313		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2620700	A1	19890324	FR 1987-12902	19870917
FR 2620700	B1	19900601		
CA 1341380	C	20020806	CA 1988-577079	19880907
DK 8805152	A	19890318	DK 1988-5152	19880915
DK 173730	B1	20010806		
AU 8822356	A	19890323	AU 1988-22356	19880916
AU 607260	B2	19910228		
JP 01110651	A	19890427	JP 1988-232122	19880916
JP 07025723	B	19950322		
ZA 8806933	A	19890530	ZA 1988-6933	19880916
AT 61567	T	19910315	AT 1988-402340	19880916
ES 2034324	T3	19930401	ES 1988-402340	19880916
JP 07206792	A	19950808	JP 1994-241178	19941005
JP 2524489	B2	19960814		
PRAI FR 1987-12902	A	19870917		
EP 1988-402340	A	19880916		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

EP 309324	ICM	C07C099-00
	ICS	C07C101-12; C07D209-42
	IPCI	C07C0099-00 [ICM,4]; C07C0101-12 [ICS,4]; C07D0209-42 [ICS,4]; C07D0209-00 [ICS,4,C*]
	IPCR	A61K0038-55 [I,C*]; A61K0038-55 [I,A]; A61P0003-00 [I,C*]; A61P0003-00 [I,A]; A61P0009-00 [I,C*]; A61P0009-00 [I,A]; A61P0009-12 [I,A]; B01J0031-02 [I,C*]; B01J0031-02 [I,A]; C07B0031-00 [I,C*]; C07B0031-00 [I,A]; C07B0057-00 [I,C*]; C07B0057-00 [I,A]; C07B0061-00 [I,C*]; C07B0061-00 [I,A]; C07C0057-00 [I,C*]; C07C0057-145 [I,A]; C07C0067-00 [I,C*]; C07C0067-00 [I,A]; C07C0227-00 [I,C*]; C07C0227-00 [I,A]; C07C0227-18 [I,A]; C07C0227-32 [I,A]; C07C0227-34 [I,A]; C07C0229-00 [I,C*]; C07C0229-16 [I,A]; C07D0209-00 [I,C*]; C07D0209-42 [I,A]; C07K0001-00 [I,C*]; C07K0001-02 [I,A]; C07K0005-00 [I,C*]; C07K0005-06 [I,A]; C07K0014-81 [I,C*]; C07K0014-81 [I,A]
FR 2620700	IPCI	C07C0101-18 [ICM,4]; C07K0005-06 [ICS,4]; C07K0005-00 [ICS,4,C*]; A61K0037-02 [ICA,4]
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CA 1341380 IPCI C07D0217-02 [ICM,7]; C07D0217-00 [ICM,7,C*];
C07D0209-04 [ICS,7]; C07D0209-00 [ICS,7,C*];
C07K0005-06 [ICS,7]; C07K0005-00 [ICS,7,C*]

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C07C0229-16 [I,A]; C07D0209-00 [I,C*]; C07D0209-42
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C07K0005-00 [I,C*]; C07K0005-06 [I,A]; C07K0014-81
[I,C*]; C07K0014-81 [I,A]

DK 8805152 IPCI C07C0099-00 [ICM,4]

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[I,C*]; A61P0003-00 [I,A]; A61P0009-00 [I,C*];
A61P0009-00 [I,A]; A61P0009-12 [I,A]; B01J0031-02
[I,C*]; B01J0031-02 [I,A]; C07B0031-00 [I,C*];
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AU 8822356 IPCI C07C0101-20 [ICM,4]; C07C0099-00 [ICS,4]

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A61P0009-00 [I,A]; A61P0009-12 [I,A]; B01J0031-02
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C07C0229-16 [I,A]; C07D0209-00 [I,C*]; C07D0209-42
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[I,C*]; C07K0014-81 [I,A]

JP 01110651 IPCI C07C0101-18 [ICM,4]; B01J0031-02 [ICS,4]; C07C0099-00
[ICS,4]; C07K0001-02 [ICS,4]; C07K0001-00 [ICS,4,C*];
C07K0005-06 [ICS,4]; C07K0005-00 [ICS,4,C*];

A61K0037-64 [ICA.4]; C07B0057-00 [ICA.4]; C07B0061-00 [ICA.4]

IPCR A61K0038-55 [I.C*]; A61K0038-55 [I.A]; A61P0003-00 [I.C*]; A61P0003-00 [I.A]; A61P0009-00 [I.C*]; A61P0009-00 [I.A]; A61P0009-12 [I.A]; B01J0031-02 [I.C*]; B01J0031-02 [I.A]; C07B0031-00 [I.C*]; C07B0031-00 [I.A]; C07B0057-00 [I.C*]; C07B0057-00 [I.A]; C07B0061-00 [I.C*]; C07B0061-00 [I.A]; C07C0057-00 [I.C*]; C07C0057-145 [I.A]; C07C0067-00 [I.C*]; C07C0067-00 [I.A]; C07C0227-00 [I.C*]; C07C0227-00 [I.A]; C07C0227-18 [I.A]; C07C0227-32 [I.A]; C07C0227-34 [I.A]; C07C0229-00 [I.C*]; C07C0229-16 [I.A]; C07D0209-00 [I.C*]; C07D0209-42 [I.A]; C07K0001-00 [I.C*]; C07K0001-02 [I.A]; C07K0005-00 [I.C*]; C07K0005-06 [I.A]; C07K0014-81 [I.C*]; C07K0014-81 [I.A]

ZA 8806933 IPCI C07C [ICM.4]; C07K [ICS.4]; A61K [ICS.4]

IPCR A61K0038-55 [I.C*]; A61K0038-55 [I.A]; A61P0003-00 [I.C*]; A61P0003-00 [I.A]; A61P0009-00 [I.C*]; A61P0009-00 [I.A]; A61P0009-12 [I.A]; B01J0031-02 [I.C*]; B01J0031-02 [I.A]; C07B0031-00 [I.C*]; C07B0031-00 [I.A]; C07B0057-00 [I.C*]; C07B0057-00 [I.A]; C07B0061-00 [I.C*]; C07B0061-00 [I.A]; C07C0057-00 [I.C*]; C07C0057-145 [I.A]; C07C0067-00 [I.C*]; C07C0067-00 [I.A]; C07C0227-00 [I.C*]; C07C0227-00 [I.A]; C07C0227-18 [I.A]; C07C0227-32 [I.A]; C07C0227-34 [I.A]; C07C0229-00 [I.C*]; C07C0229-16 [I.A]; C07D0209-00 [I.C*]; C07D0209-42 [I.A]; C07K0001-00 [I.C*]; C07K0001-02 [I.A]; C07K0005-00 [I.C*]; C07K0005-06 [I.A]; C07K0014-81 [I.C*]; C07K0014-81 [I.A]

AT 61567 IPCI C07C0227-18 [ICM.5]; C07C0227-00 [ICM.5,C*]; C07C0229-24 [ICS.5]; C07C0229-00 [ICS.5,C*]; C07D0209-42 [ICS.5]; C07D0209-00 [ICS.5,C*]

IPCR C07C0227-00 [I.C*]; C07C0227-18 [I.A]; C07C0229-00 [I.C*]; C07C0229-24 [I.A]; C07D0209-00 [I.C*]; C07D0209-42 [I.A]

ES 2034324 IPCI C07C0227-18 [ICM.5]; C07C0227-00 [ICM.5,C*]; C07C0229-24 [ICS.5]; C07C0229-00 [ICS.5,C*]; C07D0209-42 [ICS.5]; C07D0209-00 [ICS.5,C*]

IPCR A61K0038-55 [I.C*]; A61K0038-55 [I.A]; A61P0003-00 [I.C*]; A61P0003-00 [I.A]; A61P0009-00 [I.C*]; A61P0009-00 [I.A]; A61P0009-12 [I.A]; B01J0031-02 [I.C*]; B01J0031-02 [I.A]; C07B0031-00 [I.C*]; C07B0031-00 [I.A]; C07B0057-00 [I.C*]; C07B0057-00 [I.A]; C07B0061-00 [I.C*]; C07B0061-00 [I.A]; C07C0057-00 [I.C*]; C07C0057-145 [I.A]; C07C0067-00 [I.C*]; C07C0067-00 [I.A]; C07C0227-00 [I.C*]; C07C0227-00 [I.A]; C07C0227-18 [I.A]; C07C0227-32 [I.A]; C07C0227-34 [I.A]; C07C0229-00 [I.C*]; C07C0229-16 [I.A]; C07D0209-00 [I.C*]; C07D0209-42 [I.A]; C07K0001-00 [I.C*]; C07K0001-02 [I.A]; C07K0005-00 [I.C*]; C07K0005-06 [I.A]; C07K0014-81 [I.C*]; C07K0014-81 [I.A]

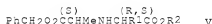
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IPCR A61K0038-55 [I.C*]; A61K0038-55 [I.A]; A61P0003-00 [I.C*]; A61P0003-00 [I.A]; A61P0009-00 [I.C*]; A61P0009-00 [I.A]; A61P0009-12 [I.A]; B01J0031-02 [I.C*]; B01J0031-02 [I.A]; C07B0031-00 [I.C*];

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 [I,C*]; C07K0014-81 [I,A]

OS CASREACT 111:115738; MARPAT 111:115738

GI



- AB (S,S)-HO₂CCHMeNHCHR¹CO₂R² (I; R¹, R² = lower alkyl), useful as intermediates for carboxyalkyl dipeptides R³CO-Q-COCHMeNHCHR¹CO₂R² (II; R³ = H, alkyl; Q = residue of indoline, isoindoline, tetrahydroquinoline, tetrahydroisquinoline, etc.), esp. perindopril and its derivs., are prepd. via (S)-H₂NCHMeO₂CH₂Ph (III) with XCHR¹CO₂R² (IV; X = halo), sepu. of (S,S) isomer from the resulting V, and deprotection by hydrogenolysis. III (prepn. given) was reacted with IV (X = Br) in DMF contg. Et₃N to give V (R¹ = Pr, R² = Et), from which the (S,S) isomer was sepd. This was hydrogenolyzed to give (S,S)-I (R¹ = Pr, R² = Et).
- ST alkylamino acid prepn; carboxyalkyl dipeptide intermediate; perindopril intermediate alkylamino acid
- IT Peptides, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (di-, carboxyalkyl, prepn. of, intermediates for, alkylamino acids as)
- IT Amino acids, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (N-alkyl, prepn. of, as intermediates for carboxyalkyl dipeptides)
- IT 615-83-8, Ethyl 2-bromovalerate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (alkylation by, of alanine deriv.)
- IT 100-51-6, Benzyl alcohol, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification of, with alanine)
- IT 56-41-7, Alanine, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification of, with benzyl alc.)
- IT 82834-16-0D, Perindopril, derivs.
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (intermediates for, alkylamino acids as)
- IT 17831-01-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and alkylation of, by haloalkanoic acid deriv.)
- IT 42854-62-6P 122264-96-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and decompn. of)
- IT 112243-70-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and deprotection of)
- IT 112243-71-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
- IT 82834-12-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of, as intermediate for carboxyalkyl dipeptides)